

REMARKS

The office action of May 9, 2005, has been carefully considered.

It is noted that claims 1 and 4-15 are rejected under 35 U.S.C. 103(a) over the patent to Evans in view of the patent to Rinker et al.

It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the references.

Turning now to the references and particularly to the patent to Evans, it can be seen that this patent discloses a sliding caliper disc brake. This reference was discussed in detail in the last filed amendment. Applicant submits that those comments remain applicable and incorporates them herein by reference in order to avoid redundancy. The following additional comments are provided. Evans teaches a brake in which the centers of gravity of the brake pads are displaced relative to each other so as to be symmetric to the center axis of the clamping device. This means that both centers of gravity of the brake pads are displaced an equal amount in different directions relative to the center axis of the

clamping device. Figure 17 that is referred to by the Examiner only shows the center of gravity of the outboard brake pad 17 displaced relative to the center axis P of the piston by a distance d.

The patent to Rinker et al. discloses a sliding caliper disc brake friction pad assembly in which the center axis of the clamping device runs through the center of gravity of the inboard brake shoe 19 (see Fig. 16 and col. 4, lines 23-26). There is no offset of the inboard brake 19 shoe relative to the outboard brake shoe 25. Thus, since the centers of gravity of both brake shoes 19 and 25 are obviously on the center axis of the clamping device, Rinker et al. teach a strong symmetry. Furthermore, from Fig. 6 of Rinker et al. it can be seen that both brake linings are supported in the brake carrier. Thus, there is no need for moment compensation because there is no moment present between the linings. In the present invention there is a moment present because the rim-side brake pad is supported directly in the caliper and then displaced in the circumferential direction relative to the tension-side brake pad. Additionally, contrary to Rinker et al., in the present invention there is always a constant surface loading of the brake pads.

The Examiner combined Rinker et al. with Evans in determining that claims 1 and 4-15 would be unpatentable over such a

combination. Applicant respectfully submits that this combination does not teach the presently claimed invention. As stated by the Examiner in the Office Action, "Evans lacks explicit disclosure of the center axis (P) of the clamping device extending through the center of gravity of the first brake pad". Since Rinker et al. are concerned with maintaining symmetry; one would anticipate that in the solution of Evans the center of gravity of the inboard brake pad 23 would not fall on the center axis P of the clamping device, but instead would be displaced by the distance d from the center axis P in order to maintain symmetry.

In contrast, according to the presently claimed invention a non-symmetric arrangement is purposely provided in that the center of gravity of only one of the brake pads is on the center axis of the clamping device, and the center of gravity of the other brake pad is displaced relative to both the center axis of the clamping device and the other center of gravity in the same direction and distance. There is no teaching of this non-symmetry in either of the references alone, nor in their combination. The references only teach symmetry.

Claim 4 defines the centers of gravity of the brake pads to be the same radial distance away from the center axis of the brake disk. This provides symmetry or uniformity in the radial direction while there is no symmetry in the circumferential direction. This


is not taught by the combination of references relied upon by the Examiner. Figure 17 of Evans does not show this because the center axis is not shown. If the points are on the same radius it would be necessary for point P to be lower than point C in Figure 17.

In view of these considerations it is respectfully submitted that the rejection of claims 1 and 4-15 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450 Alexandria, VA 22313-1450, on August 9, 2005.

By: 
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Date: August 9, 2005